International Journal of Mass Spectrometry and Ion Processes 131 (1994) vii
Elsevier Science B.V.

CONTENTS

Special Issue: Time-of-Flight Mass Spectrometry and its Applications

Foreword ix

Laser assisted reflectron time-of-flight mass spectrometry
B.A. Mamyrin (St. Petersburg, Russian Federation) 1
How to specify the ion optical system of a time-of-flight mass spectrometer
T. Bergmann (Ohlstadt, Germany) and T.P. Martin (Stuttgart, Germany) 21
The application of ion optics in time-of-flight mass spectrometry
D. Ioanoviciu (Cluj-Napoca, Romania) 43
Design considerations in energy resolved time-of-flight mass spectrometry
A.E. Giannakopulos, D.J. Reynolds, T.-W.D Chan, A.W. Colburn and P.J. Derrick (Coventry, UK) 67
Laser ion sources for time-of-flight mass spectrometry
U. Boesl, R. Weinkauf, C. Weickhardt and E.W. Schlag (Garching, Germany) 87
Photoemission electron impact ionization in time-of-flight mass spectrometry: an examination of experimental consequences
S.M. Colby and J.P. Reilly (Bloomington, IN, USA) 125
High-resolution mass spectrometry in a linear time-of-flight mass spectrometer
J.M. Grundwürmer, M. Bönisch, G.R. Kinsel, J. Grotemeyer and E.W. Schlag (Garching, Germany) 139
The design and performance of an ion trap storage–reflectron time-of-flight mass spectrometer
B.M. Chien, S.M. Michael and D.M. Lubman (Ann Arbor, MI, USA) 149
Pulse amplitude analysis: a new dimension in single ion time-of-flight mass spectrometry
P.V. Bondarenko, P.G. Grant and R.D. Macfarlane (College Station, TX, USA) 181
Mass analyzed threshold ionization: structural information for a mass spectrum and mass information for ionic spectroscopy
P.M. Johnson and L. Zhu (Stony Brook, NY, USA) 193
Decay energetics of molecular clusters studied by multiphoton mass spectrometry and pulsed field threshold ionization
H.J. Neusser and H. Krause (Garching, Germany) 211
Using reflectron time-of-flight mass spectrometer techniques to investigate cluster dynamics and bonding
S. Wei and A.W. Castleman, Jr. (University Park, PA, USA) 233
The one dimensional photofragment translational spectroscopic technique: intramolecular clocking of energy redistribution for molecules falling apart
H.J. Hwang, J. Griffiths and M.A. El-Sayed (Los Angeles, CA, USA) 265
Quantitative determination of kinetic energy releases from metastable decomposition of sputtered organic ions using a time-of-flight mass spectrometer with a single-stage ion mirror
D.F. Barofsky (Corvallis, OR, USA), G. Brinkmalm, P. Håkansson and B.U.R. Sundqvist (Uppsala, Sweden) 283
Kinetic energy analysis in time of flight mass spectrometry: application of time of flight methods to clusters and pyrolysis studies in supersonic expansions
J.S. Riley and T. Baer (Chapel Hill, NC, USA) 295
Photodissociation of magnesium ion/molecule complexes in a reflectron time-of-flight mass spectrometer
C.S. Yeh, K.F. Willey, D.L. Robbins and M.A. Duncan (Athens, GA, USA) 307
Resonance-enhanced two-photon ionization time-of-flight spectroscopy of cold perfluorinated polyethers and their external and internal van der Waals dimers
D.S. Anex, M.S. de Vries, A. Knebelkamp, J. Bargon, H.R. Wendt and H.E. Hunziker (San Jose, CA, USA) 319
Time of flight mass spectrometry of DNA laser-ablated from frozen aqueous solutions: applications to the Human Genome Project
P. Williams (Tempe, AZ, USA) 335
Factors affecting the resolution in matrix-assisted laser desorption–ionization mass spectrometry
A. Ingendoh, M. Karas, F. Hillenkamp (Münster, Germany) and U. Giessmann (Bremen, Germany) 345
Sequencing of peptides in a time-of-flight mass spectrometer: evaluation of postscource decay following matrix-assisted laser desorption–ionization (MALDI)
R. Kaufmann, D. Kirsch and B. Spengler (Dusseldorf, Germany) 355
Energy-isochronous time-of-flight mass analyzers
H. Wollnik (Giessen, Germany) 387

Author Index 409

Subject Index 411